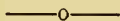


nostril 0·25; the bill strong and wide at the base, from in front of the nostril to the tip laterally compressed, with the culmen strongly curved to the tip.

Hab. St. Christoval. (*Morton.*)



Since this paper was read I have received another large collection of birds from the Solomon Islands, which contains a fine series of *Astur albigularis*, (Gray), these tend to prove that my *A. versicolor* is a stage of plumage of *A. albigularis*, but a large series must be carefully sexed before the matter can be decided; I will lay before the Society a paper on this subject without delay.



FRUCTIFICATION OF THE BUNYA.

BY THE HON. JAMES NORTON, M.L.C.

About forty years ago it began to be noticed that the *Araucaria excelsa* (Norfolk Island Pine) produced large cones abundantly, and the market gardeners at once began to plant the nuts obtained from these cones freely, but were disappointed on finding that none of them germinated. To botanists the reason was obvious, for the plant being monœcious had not yet produced the male cones or catkins, as they should perhaps be called.

In the year 1852 I noticed in "Curtis' Botanical Magazine, Tab. 4365," the figures and description of the cones of *A. columnaris*, which were stated to have been forwarded to England by Mr. Charles Moore, who was then, as now, Director of our Botanical Gardens. This induced me to examine the Norfolk Pines carefully, and, singularly enough, I immediately found them commencing to produce the male cones in profusion.

The consequence was that the nuts became fertile, and at Annandale it was found that the young plants came up as freely as the barley among which they fell, and produced a crop much more profitable to Capt. Johnstone.

At that time there were few if any well grown plants of *A. Bidwilli* (Bunya) in the Colony, and in 1857 I planted at Ecclesbourne, Double Bay, a specimen which had been raised in a pot and must then have been a few years old, and which is consequently now about 30 years of age and about 40 feet in height. This and other specimens subsequently planted have produced female cones abundantly, but after examining hundreds of the nuts I have succeeded in finding only about half a dozen fertile ones.

The planting of the first fertile nuts found was unfortunately delayed rather too long and therefore produced no result, but the three found last year were planted immediately and produced roots within a few days. Their subsequent progress was at first quite satisfactory, but through the neglect of a gardener the plants have now probably perished.

There can be little doubt that the fertility of the few good nuts found was produced by the pollen from either *A. excelsa* or *A. Cunninghamsi*, for it is certain that *A. Bidwilli* had not then produced male cones.

At Camden Park there may be seen a large tree which was grown from a nut produced on the spot, and supposed to have been fertilized by *A. Braziliensis*. There is certainly a difference between it and the mother plant standing close by.

The fact which I now wish particularly to bring before the Society is that the tree first planted by me has this year for the first time borne numerous male cones, which will probably enable us to produce young plants freely and so greatly diminish the risk of the extinction of a tree which is fairly considered to be one of the most beautiful in the world.

The male cones as in other *Araucarias* are produced on the leaf spires but not at the ends, as is the case with *A. excelsa*, while the females spring from the solid wood of the branches which have no difficulty in supporting their great weight.

It is a little dangerous to work under the Bunya at the time of year at which the cones fall, for a blow on the head from one of them falling from a height of 40 or 50 feet would be a serious matter as they fall bodily and not piecemeal as in the case of *A. excelsa*.

The fruiting cones have not yet appeared and probably will not do so till the male is sufficiently advanced to produce the pollen which will probably fertilize them.

I may here mention that about seventeen years ago I planted an avenue of these trees which have greatly puzzled some of the gardeners who believe them to be a variety of the true Bunya. The explanation of the matter is that in order to prevent their enormous spread the ends of the branches have been several times lopped. This has caused the wounded parts to throw out numerous branchlets which have made the trees look very rich and compact and probably also caused them to grow taller than they otherwise would have done.

I cannot imagine anything more beautiful than these trees at the beginning of summer when they throw out a profusion of young pale green shoots contrasting very strikingly with the older dark green foliage.

NOTES AND EXHIBITS.

The Honble. James Norton exhibited some male cones of the Bunya tree mentioned in his paper.

Dr. Cox exhibited a curious albino variety of *Platyceercus pallidiceps* from Queensland.
